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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/593,890

**Applicant(s)**

KONDO ET AL.

**Examiner**

Faisal M. Zaman

**Art Unit**

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2010.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 22 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date 9/22/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

***Claim Objections***

1. **Claims 1 and 14** are objected to because of the following informalities: in line 9 and line 8, respectively, replace "plural function blocks" with --plural functional blocks--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-8 and 11-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over McFadden et al. (U.S. Patent No. 6,614,804) ("McFadden") and Kanda (U.S. Patent No. 4,884,150).

**Regarding Claim 1**, McFadden discloses an information-signal-processing apparatus comprising:

plural functional blocks each for processing an information signal (McFadden, Figure 1, items 16a-16c); and

a control block for controlling operations of the plural functional blocks (McFadden, Figure 1, item 12/14),

wherein the control block or a predetermined block of the control block and the plural functional blocks issues a common command (McFadden, Figure 5, item 200/202); and

each of the plural functional blocks adaptively operates in accordance with the issued common command (McFadden, Column 5 line 59 - Column 6 line 14), and

wherein the information signal includes image signals (McFadden, Column 5, lines 48-51).

McFadden does not expressly disclose at least one functional block of the plural functional blocks performs an image quality improvement processing, and the common command includes information related to the image quality improvement processing.

In the same field of endeavor (e.g., image transfer between multiple devices), Kanda teaches at least one functional block (Kanda, Figure 4, item 27) of plural functional blocks performs an image quality improvement processing (i.e., noise reduction), and a common command (Kanda, Figure 4, item 'a') includes information related to the image quality improvement processing (Kanda, Column 5 line 30 - Column 6 line 29, also see Column 6, lines 37-61; i.e., the command "a" enables the quality improvement processing to be output to D/A converter 14).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Kanda's teachings of image transfer between multiple devices with the teachings of McFadden, for the purpose of providing an inexpensive information reproducer capable of reproducing a still picture of good quality (see Kanda, Column 3, lines 5-7).

**Regarding Claim 2**, McFadden discloses wherein the functional blocks change a signal path or signal processing in accordance with the common command (Column 5 line 59 - Column 6 line 14).

**Regarding Claim 3**, McFadden discloses wherein the control block includes command acquisition means for acquiring the common command (Figure 1, item 14).

**Regarding Claim 4**, McFadden discloses wherein the command acquisition means acquires the common command from the plural functional blocks (Column 5, lines 31-36; i.e., if the server 12 is considered to be a part of the plural functional blocks).

**Regarding Claim 5**, McFadden discloses wherein the command acquisition means acquires the common command from an outside of the apparatus (Figure 1, item 14, Column 5, lines 31-36).

**Regarding Claim 6**, McFadden discloses wherein the control block has a first common command that corresponds to a user operation; and

wherein if the user operation that corresponds to the first common command is performed, the control block delivers this first common command to the plural functional blocks (Column 6, lines 46-57).

**Regarding Claim 7**, McFadden discloses wherein the control block has a second common command that does not correspond to a user operation; and wherein the control block delivers the second common command to the plural functional blocks without associating this command with the user operation (Column 5 line 66 - Column 6 line 4).

**Regarding Claim 8**, McFadden discloses wherein the block that issues the common command delivers most recent values of the common commands (i.e., the most recent software upgrades) of all of kinds or some of the kinds to the plural functional blocks for every predetermined lapse of time (Column 9, lines 23-35).

**Regarding Claim 11**, McFadden discloses wherein the predetermined block issues the common command including a result of processing the information signal (Column 5, lines 31-36).

**Regarding Claim 12**, McFadden discloses wherein the control block and said plural functional blocks are connected to each other via a control bus (Column 4, lines 21-33).

**Regarding Claim 13**, McFadden discloses wherein each of the plural functional blocks is constituted of a substrate; and

wherein some or all of the plural functional blocks are respectively inserted into slots formed in a chassis thereof (Figure 1, items 16a-16c; i.e., the various circuit boards located within the clients).

**Regarding Claim 14**, McFadden discloses a functional block control method comprising the steps of:

transmitting a common command (McFadden, Figure 5, item 200/202) to plural functional blocks (McFadden, Figure 1, items 16a-16c), respectively, used to process an information signal from a control block (McFadden, Figure 1, item 12/14) or from a predetermined block of the control block and the plural functional blocks; and

adaptively operating the plural functional blocks in accordance with the common command (McFadden, Column 5 line 59 - Column 6 line 14), and

wherein the information signal includes image signals (McFadden, Column 5, lines 48-51).

McFadden does not expressly disclose at least one functional block of the plural functional blocks performs an image quality improvement processing, and the common command includes information related to the image quality improvement processing.

In the same field of endeavor, Kanda teaches at least one functional block (Kanda, Figure 4, item 27) of plural functional blocks performs an image quality improvement processing (i.e., noise reduction), and a common command (Kanda, Figure 4, item 'a') includes information related to the image quality improvement processing (Kanda, Column 5 line 30 - Column 6 line 29, also see Column 6, lines 37-

61; i.e., the command "a" enables the quality improvement processing to be output to D/A converter 14).

The motivation that was used in the combination of Claim 1, supra, applies equally as well to Claim 14.

4. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over McFadden and Kanda as applied to Claim 1 above, and further in view of Yoon et al. (U.S. Patent No. 6,345,185) ("Yoon").

**Regarding Claim 9**, McFadden and Kanda disclose wherein the block that issues the common command transmits most recent values of the common commands of all of kinds or some of the kinds (McFadden, Column 9, lines 23-35).

McFadden and Kanda do not expressly disclose transmitting the common command if a command indicative of a normal operation from the functional block that is to operate when having received the issued common command is not returned.

In the same field of endeavor (e.g., command transferring in a mobile communication system), Yoon teaches transmitting a most recent common command if a command indicative of a normal operation from a functional block that is to operate when having received the issued common command is not returned (Yoon, Column 9, lines 31-39).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Yoon's teachings of command transferring in a mobile communication system with the teachings of McFadden and



Kanda, for the purpose of assuring that all of the functional blocks properly receive the common commands.

5. **Claim 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over McFadden and Kanda as applied to Claim 1 above, and further in view of Nakatsugawa.

**Regarding Claim 10**, McFadden and Kanda do not expressly disclose wherein the functional blocks each comprises a control section and a functional section which is controlled by this functional section;

wherein the control section includes:

storage means for storing a correlation between the common command related to its own functional block and an intra-functional-block command used to control the control section;

reception means for receiving the common command from the control block; and

conversion means for, if the common command received by the reception means is the common command related to its own functional block, converting this common command into the intra-functional-block command based on the correlation stored in said storage means.

In the same field of endeavor (e.g., common command transferring between a plurality of devices), Nakatsugawa teaches wherein functional blocks each comprise a control section (Nakatsugawa, Figure 1, item 7 with 3b) and a functional section (Nakatsugawa, Figure 1, item 4b with 5b) which is controlled by this functional section;

wherein the control section includes:

storage means for storing a correlation between the common command related to its own functional block and an intra-functional-block command used to control the control section (Nakatsugawa, Figure 1, item 7);

reception means (Nakatsugawa, Figure 1, item 6) for receiving the common command from a control block (Nakatsugawa, Figure 1, item 4a); and

conversion means for, if the common command received by the reception means is the common command related to its own functional block, converting this common command into the intra-functional-block command based on the correlation stored in said storage means (Nakatsugawa, Figure 1, item 6, Column 4 line 64 - Column 5 line 8).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Nakatsugawa's teachings of common command transferring between a plurality of devices with the teachings of McFadden and Kanda, for the purpose of allowing an intended device to properly execute a received command.

6. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsugawa (U.S. Patent No. 6,754,719) and Kanda.

**Regarding Claim 15**, Nakatsugawa discloses a functional block comprising:

a control section (Figure 1, item 7 with 3b); and

a functional section that is controlled by this control section (Figure 1, item 4b with 5b),

wherein the control section includes:

storage means for storing a correlation (i.e., a command conversion table) between a common command related to its own functional block and an intra-functional-block command used to control the control section (Nakatsugawa, Figure 1, item 7);

reception means (Figure 1, item 6) for receiving the common command from a control block (Figure 1, item 4a); and

conversion means for, if the common command received by the reception means is the common command related to its own functional block, converting this common command into an intra-functional-block command based on the correlation stored in the storage means (Nakatsugawa, Figure 1, item 6, Column 4 line 64 - Column 5 line 8).

Nakatsugawa does not expressly disclose wherein the functional section includes a function to perform an image quality improvement processing, and the common command includes information related to the image quality improvement processing.

In the same field of endeavor (e.g., image transfer between multiple devices), Kanda teaches wherein a functional section (Kanda, Figure 4, item 27) includes a function to perform an image quality improvement processing (i.e., noise reduction), and a common command (Kanda, Figure 4, item 'a') includes information related to the image quality improvement processing (Kanda, Column 5 line 30 - Column 6 line 29, also see Column 6, lines 37-61; i.e., the command "a" enables the quality improvement processing to be output to D/A converter 14).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Kanda's teachings of image transfer

between multiple devices with the teachings of Nakatsugawa, for the purpose of providing an inexpensive information reproducer capable of reproducing a still picture of good quality (see Kanda, Column 3, lines 5-7).

7. **Claims 16-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over McFadden and Kanda as applied to Claim 1 above, and further in view of Hao et al. (U.S. Patent No. 6,434,432) ("Hao").

**Regarding Claim 16**, McFadden and Kanda disclose wherein the control block and the plural functional blocks respectively have a bus interface (Column 4, lines 21-33);

wherein the control block and the plural functional blocks respectively are connected to each other by a bus using the bus interface (Column 4, lines 21-33).

McFadden does not expressly disclose wherein the bus interface includes:

a message buffer for storing received data; and

a message storage control section for selectively storing data received via the bus in the message buffer.

In the same field of endeavor (e.g., message transferring between multiple functional blocks), Hao teaches wherein a bus interface includes:

a message buffer for storing received data; and

a message storage control section for selectively storing data received via the bus in the message buffer (Hao, Column 9, lines 36-42).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Hao's teachings of message transferring between multiple functional blocks with the teachings of McFadden and Kanda, for the purpose of preventing wasting storage and processing time for functional blocks that are intended recipients of data or commands.

**Regarding Claim 17**, Hao teaches wherein the control block transmits the common command having at least an identifier to the plural functional blocks (Hao, Column 8, lines 64-67); and

wherein if the identifier of a predetermined common command that has been set beforehand agrees with an identifier of the common command that has been received via the bus, the message storage control sections in the plural functional blocks store this received common command into the message buffer (Hao, Column 9, lines 18-42).

The motivation that was used in the combination of Claim 16, *super*, applies equally as well to Claim 17.

**Regarding Claim 18**, Hao teaches wherein the bus is a CAN bus (Hao, Column 1, lines 18-23).

The motivation that was used in the combination of Claim 16, *super*, applies equally as well to Claim 18.

***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 14, and 15 have been considered but are moot in view of the new ground(s) of rejection. Kanda (U.S. Patent No. 4,884,150) teaches the newly added limitation, as discussed above.
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faisal M. Zaman whose telephone number is 571-272-6495. The examiner can normally be reached on Monday thru Friday, 8 am - 5:30 pm, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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